

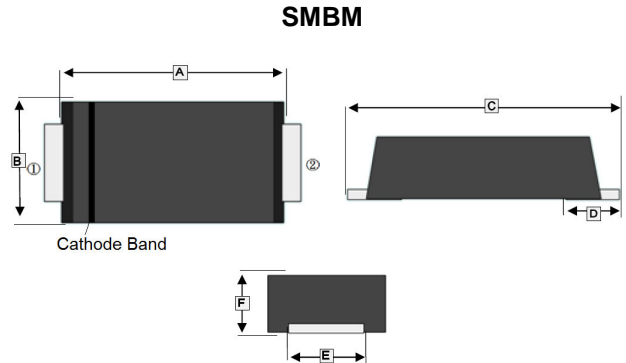
RoHS Compliant Product  
A suffix of "-C" specifies halogen & lead-free

## FEATURES

- Metal Silicon Junction, Majority Carrier Conduction
- For Surface Mounted Applications
- Low Power Loss, High Efficiency
- High Forward Surge Current Capability
- For Use In Low Voltage, High Frequency Inverters, Free Wheeling, and Polarity Protection Applications

## MECHANICAL DATA

- Case Material: SMBM
- Terminals: Solderable per MIL-STD-750, Method 2026
- Polarity: Cathode Band



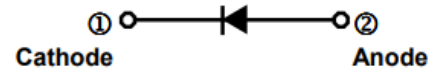
## MARKING

SL345B

| REF. | Millimeter |      | REF. | Millimeter |      |
|------|------------|------|------|------------|------|
|      | Min.       | Max. |      | Min.       | Max. |
| A    | 4.2        | 4.7  | D    | 1.0 REF    |      |
| B    | 3.4        | 3.8  | E    | 1.8        | 2.2  |
| C    | 5.1        | 5.5  | F    | 1.1        | 1.45 |

## PACKAGE INFORMATION

| Package | MPQ | Leader Size |
|---------|-----|-------------|
| SMBM    | 5K  | 13 inch     |



## ORDER INFORMATION

| Part Number | Type                            |
|-------------|---------------------------------|
| SK345BM-C   | Lead (Pb)-free and Halogen-free |

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(Rating 25°C ambient temperature unless otherwise specified. Single phase half wave, 60Hz, resistive or inductive load.  
For capacitive load, de-rate current by 20%.)

| Parameter  | Symbol          | Ratings                 | Unit |
|--|-----------------|-------------------------|------|
| Maximum Repetitive Peak Reverse Voltage  | $V_{RRM}$       | 45                      | V    |
| Maximum RMS Voltage  | $V_{RMS}$       | 32                      | V    |
| Maximum DC Blocking Voltage  | $V_{DC}$        | 45                      | V    |
| Maximum Average Forward Rectified Current  | $I_F$           | 3                       | A    |
| Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load | $I_{FSM}$       | 80                      | A    |
| Maximum Instantaneous Forward Voltage @3A  | $V_F$           | 0.45                    | V    |
| Maximum DC Reverse Current @DC Blocking Voltage                                    | $I_R$           | $T_A=25^\circ\text{C}$  | 0.5  |
|  |                 | $T_A=100^\circ\text{C}$ | 5    |
| Typical Junction Capacitance <sup>1</sup>  | $C_J$           | 400                     | pF   |
| Typical Thermal Resistance from Junction to Ambient <sup>2</sup>                   | $R_{\theta JA}$ | 50                      | °C/W |
| Typical Thermal Resistance from Junction to Case <sup>2</sup>                      | $R_{\theta JC}$ | 20                      |      |
| Operating Junction and Storage Temperature Range                                   | $T_J, T_{STG}$  | 125, -55~150            | °C   |

Notes:

1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
2. P.C.B. mounted with 2.0" X 2.0" (5 X 5cm) copper pad areas.

**RATINGS AND CHARACTERISTIC CURVES**

Fig.1 Forward Current Derating Curve

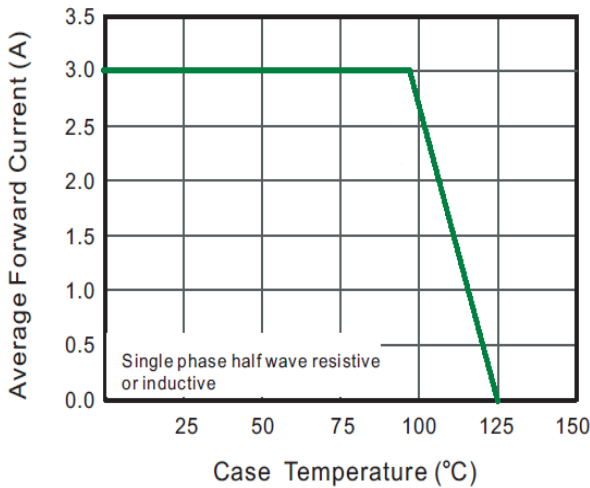


Fig.2 Typical Reverse Characteristics

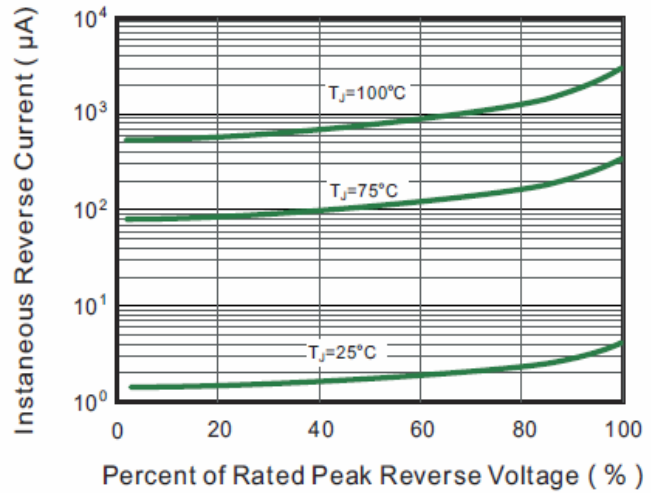


Fig.3 Typical Forward Characteristic

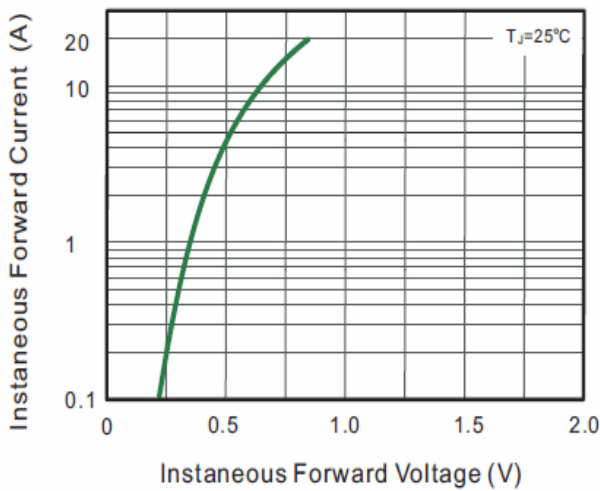


Fig.4 Typical Junction Capacitance

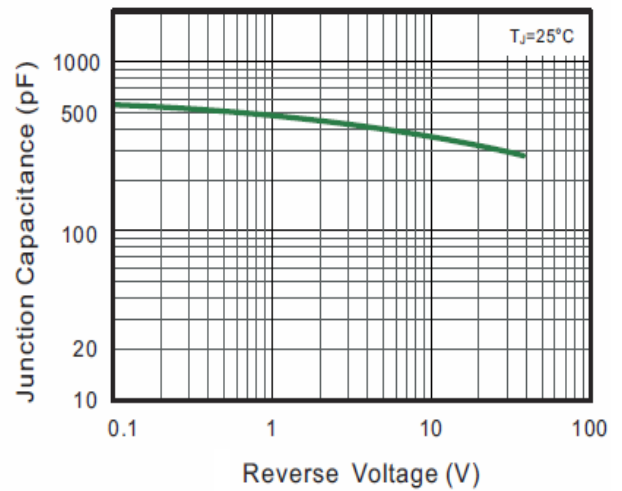


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

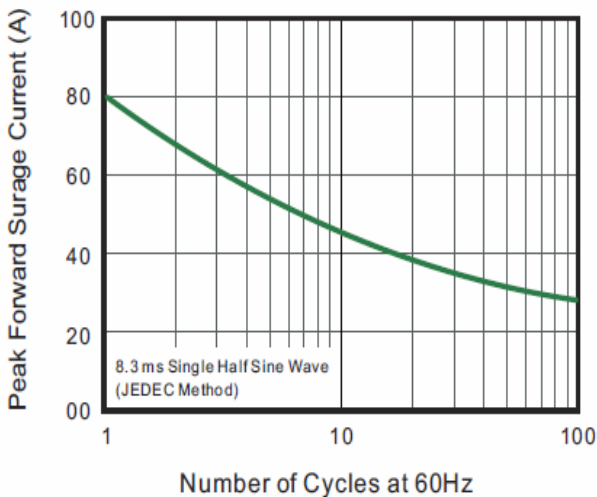


Fig.6-Typical Transient Thermal Impedance

